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ACADEMIC MEDICINE

Teaching Medical Ethics

Literature Review

- Medical Education Coming of Age

Program Descriptions

- Baylor
- Chicago
- Loyola
- Brown-RI
- UCSF and Washington
- Northwestern
- East Carolina
- Penn State
- Pittsburgh

Research

Book Reviews Ethics Topics

VOLUME 64 • NUMBER TWELVE

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ACADEMIC MEDICINE

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COLLEGES

Foreword

Special Issue: Teaching Medical Ethics *by Addeane S. Caelleigh* 699

Preface *by Laura Weiss Lane, M.D., and Steven H. Miles, M.D.* 700

Overviews

Teaching Medical Ethics: Some Persistent Questions and Some Responses *by Edmund D. Pellegrino, M.D.* 701

Teaching Medical Ethics: A Hard-won Beachhead *by Edward J. Stemmler, M.D.* 704

Literature Review

Medical Ethics Education: Coming of Age *by Steven H. Miles, M.D., Laura Weiss Lane, M.D., Janet Bickel, M.A., Robert M. Walker, M.D., and Christine K. Cassel, M.D.* 705

Program Descriptions

The Baylor Experience in Teaching Medical Ethics *by Baruch A. Brody, Ph.D.* 715

Medical Ethics Teaching Programs at the University of California, San Francisco, and the University of Washington *by Albert R. Jonsen, Ph.D.* 718

Development of a Teaching Program in Clinical Medical Ethics at the University of Chicago *by Robert M. Walker, M.D., Laura Weiss Lane, M.D., and Mark Siegler, M.D.* 723

Development of the Medical Humanities Program at East Carolina University *by Loretta M. Kopelman, Ph.D.* 730

The Clinical Medical Humanities Program at Loyola University of Chicago *by David C. Thomasma, Ph.D., and Patricia Marshall, Ph.D.* 735

Ethics Education at Northwestern University Medical School *by James F. Bresnahan, S.J., J.D., LL.M., Ph.D., and Kathryn Montgomery Hunter, Ph.D.* 740

Teaching Medical Ethics in Its Contexts: Penn State College of Medicine *by David Barnard, Ph.D., and K. Danner Clouser, Ph.D.* 744

	Evolution of Clinical Ethics Teaching at the University of Pittsburgh *by Joel Frader, M.D., Robert Arnold, M.D., John Coulehan, M.D., Rosa Lynn Pinkus, Ph.D., Alan Meisel, J.D., and Kenneth Schaffner, Ph.D., M.D.*	747
	The Development of Medical Ethics Curriculum in a General Internal Medicine Residency Program *by Steven A. Wartman, M.D., Ph.D., and Dan W. Brock, Ph.D.*	751
Research Reports **ARTICLES**	The Effect of Teaching Medical Ethics on Medical Students' Moral Reasoning *by Donnie J. Self, Ph.D., Fredric D. Wolinsky, Ph.D., and DeWitt C. Baldwin, Jr., M.D.*	755
	Internal Medicine Residents' Preferences Regarding Medical Ethics Education *by Jay A. Jacobson, M.D., Susan W. Tolle, M.D., Carol Stocking, Ph.D., and Mark Siegler, M.D.*	760
Book Reviews	*Essays on the Rise and Decline of Bedside Medicine* (Altschule) *Reviewed by* C. Rollins Hanlon, M.D.	765
	Racial Hygiene (Proctor) *Reviewed by* Fritz Redlich, M.D.	766
	The AIDS Patient: An Action Agenda (Rogers and Ginzberg) *Reviewed by Philip R. Lee, M.D.*	767
	House Officer: Becoming a Medical Specialist (Cohen) *Reviewed by* Louis J. West, M.D.	768
	Cases in Bioethics: Selections from the Hastings Center Report (Levine) *Reviewed by Leslie Steven Rothenberg, J.D.*	769
	Technology, Bureaucracy and Healing in America: A Post-Modern Paradigm (Bulger) *Reviewed by David M. Rogers, M.D.*	770
	Disease in the Popular American Press: The Case of Diphtheria, Typhoid Fever, and Syphilis, 1870–1920 (Ziporyn) *Reviewed by Phil Manning, M.D.*	772
Innovations in Medical Education	Evaluating Clinical Teachers for Promotion *by Arthur I. Rothman, Ed.D., Peeter Poldre, M.D., and Robert Cohen, Ph.D.*	774
From the President		776
AAMC FOCUS		777
National Policy Perspectives		778
Letters to the Editor		780
AAMC Data Report		782
Bibliography		783

The Index to Volume 64 will appear in the January 1990 issue

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VOLUME 64
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Internal Medicine Residents' Preferences Regarding Medical Ethics Education

JAY A. JACOBSON, M.D., SUSAN W. TOLLE, M.D., CAROL STOCKING, Ph.D., and MARK SIEGLER, M.D.

Abstract—Three hundred and twenty-three residents in six internal medicine programs in three states were surveyed concerning what they wanted to learn about medical ethics and how they would prefer to learn it; they were also asked to indicate what medical ethics education they had already received. Specifically, the residents were given a list of 35 medical ethics topics and asked to indicate whether they would like more attention to a topic, or whether it had received enough or too much attention. (They could also indicate that they thought the topic was inappropriate for attention during residency.) The residents were also given a list of 17 teaching methods for medical ethics and asked to indicate whether each method was very useful, somewhat useful, or not useful. Sixty-one percent of the residents responded. Approximately three-fourths of these had had some formal teaching about medical ethics in both medical school and residency, and nearly all indicated that they wanted more ethics training on specific topics. Certain topics were chosen as particularly suitable or unsuitable for such training; many of those judged as deserving more attention concerned legal issues and end-of-life issues. Most of the responding residents regarded standard clinical teaching formats as very useful for learning about medical ethics but regarded several other methods as not useful. The authors discuss the implications of these and related findings. *Acad. Med.* 64(1989):760–764.

Internal medicine residency is an opportune and appropriate time to teach medical ethics,[1–6] but just what to teach to residents and how to teach it remain perplexing questions. Striking variations in the residents' prior experience with ethics,[7,8] new issues arising from rapid changes in medicine, and compelling clinical demands on their time make it essential to choose topics that residents regard as important and methods that are efficient and effective.

To discover what residents want to learn about medical ethics and how they would prefer to learn it, we conducted a questionnaire survey of residents in six training programs in three states. Our principal objective was to provide program directors and ethics educators with a list of subject areas that most residents wanted to learn more about and methods of teaching that residents indicated would be most effective.

Dr. Jacobson and Dr. Tolle were visiting scholars, Center for Clinical Medical Ethics, Pritzker School of Medicine, University of Chicago, Chicago, Illinois, at the time of the study. Dr. Jacobson is chief, Division of Medical Ethics, LDS Hospital and University of Utah Department of Medicine in Salt Lake City, Utah; Dr. Tolle is director, Center for Ethics in Health Care, Oregon Health Sciences University, Portland, Oregon. Dr. Stocking is director of research and Dr. Siegler is director, Center for Clinical Medical Ethics, Pritzker School of Medicine.

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Method

We surveyed residents from six internal medicine programs: The University of Chicago and the Evanston Hospital in Illinois, the University of Utah and the LDS Hospital in Salt Lake City, Utah, and the Oregon Health Sciences University and the Good Samaritan Hospital in Portland, Oregon. We selected three university programs and three private affiliated programs. The program directors or the chief residents notified the house staff about our survey and encouraged them to participate. In February 1989, we distributed a six-page questionnaire about medical ethics education to the 332 residents in these programs. A second mailing to nonrespondents was sent in April 1989.

The 35 medical ethics topics we asked the residents about were similar to those used in a previous survey of physicians and those mentioned in the DeCamp report.[3,5] The residents we surveyed could indicate whether they would like more attention to a topic, or whether it had received enough or too much attention. They could also indicate that they thought the topic was inappropriate for attention during residency. The 17 teaching methods we offered for consideration were those discussed in the DeCamp Report or described by other educators.[9–13] The residents we surveyed were asked to indicate whether each method was very useful, somewhat useful, or not useful. Residents were also asked to indicate what medical ethics education they had received in medical school and during their residency periods.

We assured residents that their responses would be confidential and that only aggregated data would be reported. The design of the study and the questionnaire were approved by the Institutional Review Board at the University of Chicago Pritzker School of Medicine.

Results

Of the 332 residents, 202 (61%) returned their questionnaires by May 12, 1989. The sizes of their programs ranged from 33 to 77 residents, and

the response rates varied by program from 52 to 75%. Overall, 65% of the sample were men and 62% of the respondents were men. The average age of the residents was 30 years. They were approximately equally divided in terms of years of training: 37% were in their first year, 30% in their second year, and 30% in their third year. In two programs, approximately 60% of the responses came from first-year trainees. The 162 residents who identified their medical schools had graduated from 79 U.S. medical schools.

Seventy-two percent of the residents had had at least one formal course about medical ethics in medical school, usually during the preclinical years; 97% recalled some informal education about ethics as well. A majority in each program and 74% overall said they had received medical ethics teaching during their residencies (range, 57–90%). There was no significant difference in the answers to this question by the residents' years of training.

The residents' preferences about ethics topics and how to teach them are shown in Tables 1 and 2. Surprisingly, the responses regarding topics did not differ significantly between those who had had no formal ethics course in medical school and those who had had one or more. With two exceptions, the distribution of responses did not vary significantly by the residents' years of training. The first-year residents were more likely than their more senior colleagues to want more teaching about withholding life support (80% versus 64%, chi-square = 6.077, df = 2, $p = .05$), and the more senior residents more often wanted additional information about laws related to physician-patient relations (84% versus 71%, chi-square = 5.81, df = 2, $p = .055$).

Nineteen topics merit more attention, according to a majority or plurality of residents in the survey. No topic was judged to have received too much attention by more than 5% of respondents, and no topic was felt to be inappropriate by more than 13%.

Table 1 shows the 11 topics identified by 50% or more of the residents in each program as needing more attention. The list suggests that residents are particularly interested in learning more about laws and decisions related to end-of-life issues and about problems of access to health care and allocation of resources.

Table 1 also contains 17 topics selected by a majority of residents in at least one program, but not by all, as needing more attention. Distributions of the responses by program differed significantly for six topics: role of an ethics consultant, functions of ethics committees, conflict resolution between resident and attending physician and conflict resolution between doctors and patients, and the family's and the patients roles in decision making (chi – square > 31.7, df = 15, $p < .01$).

Only seven topics were judged not to need more attention by a majority of residents in any program. Only four topics were considered inappropriate by at least 10% of all respondents: making admission or treatment decisions based on ability to pay, experimentation on human subjects, religious views on ethical questions, and euthanasia.

The residents' responses about the usefulnesses of various teaching methods are shown in Table 2. Although there was variation between programs, several methods were fairly strongly endorsed or rejected. Four methods were judged very useful by a majority of residents: several conferences on ethics, several lectures or grand rounds, incorporation of these issues in other presentations and discussions, and discussion with colleagues and a knowledgeable discussion leader. Only two methods were regarded as not useful by more than 50%: watching a self-instructive videotape about an ethical issue and a reading course based on novels.

Discussion

Our survey showed that most of the residents had had some medical ethics education in medical school,[7,8] that 74% also had had it during their residencies, and that nearly all wanted more ethics training in specific areas. Most regarded standard clinical teaching formats as very useful for learning about medical ethics, but they regarded several other methods as not useful.

A majority of respondents from each program we surveyed indicated that they had had some formal teaching about ethics during their residencies. This high prevalence of ethics education may not be representative of all U.S. programs. In a 1984 survey, 40% of internal medicine residencies provided no formal exposure to medical ethics.[14] Despite some ethics education during residency, most of our respondents indicated that they would like more. These results parallel those of several earlier surveys of residents and practicing physicians.[15,16] Three conclusions, then, can be drawn from our survey.

First, residents, including those with prior exposure to teaching about medical ethics, appear receptive to more medical ethics education. However, how much time should be spent on medical ethics was not addressed in our survey.

Second, despite variations in their prior experiences and differences between their residency programs, a majority of respondents from each program chose 11 topics that they would like to learn more about. These clustered in the areas of laws and practices related to limiting life-support systems, allocation of resources, and access to medical care. Our respondents' interest in these subjects was keener than that of physicians in an earlier survey.[5] This may be because, as residents, they confront end-of-life decisions more often than many practicing physicians do and because physicians in general are more concerned today about economic issues and legal risk than they were in 1982. However, even topics not cited by most residents as meriting more attention might be of considerable interest and importance to individual residents because of their particular circumstances.

Third, some topics may be particularly well or poorly suited for individual programs. Several of the differences we encountered among programs regarding specific topics are

Table 1

Percentages of 202 Residents in Six Internal Medicine Residency Programs* Who Reported They Wanted More Attention Given to Instruction on Each of 37 Topics in Medical Ethics, 1989

Topic	% of All Respondents	Range of % by Program
Selected by 50% or more of residents in all programs		
Laws related to withdrawal of life support	84	71–95
Laws related to physician-patient relations	80	71–90
Withdrawing life-supporting treatment	75	58–88
Living wills and advance directives	73	61–95
Allocation of limited resources related to diagnosis or prognosis	73	50–86
Government policy regarding access to medical care	73	61–80
Withholding life-supporting treatment	70	52–80
Understanding rights of incompetent patients	64	53–74
Euthanasia	63	50–75
Incompetent or impaired colleagues	62	55–85
Priority for scarce organs	61	50–75
Selected by 50% or more of residents in one or more, but not all, programs		
Making admission or treatment decisions based on ability to pay	60	43–85
Selection of transplant recipients	56	34–72
Requesting organ donation	54	45–72
Do not rescitate orders	51	42–60
Withholding information from patients	49	34–63
Role of an ethics consultant†	49	16–85
Experimentation on human subjects	48	30–55
Religious views on ethical questions	45	26–80
How to care for and communicate with a dying patient	47	34–67
Functions of ethics committees†	46	26–80
How to cope with death of patient	44	36–57
Conflict resolution between resident and attending†	42	25–60
Conflict resolution between doctors and nurses	42	28–55
Conflict resolution between doctors and patients†	40	31–50
Nursing ethics	39	16–75
Confidentiality	38	22–54
Physician's conflict of interest: financial advantage versus patient welfare	34	11–50
Not selected by 50% or more of residents in any program		
Family's role in decision making†	32	10–46
Patient's role in decision making†	30	13–40
Informed consent	35	24–45
Physician's obligations to patients	34	22–45
Personal values versus patient's values	33	19–43
Guidance on expression of compassion	30	16–45
Physician's role in decision making	26	13–40

*The six programs (one in Chicago and one in Evanston, Illinois; two in Salt Lake City, Utah; and two in Portland, Oregon) had a total of 332 residents.

†Significant difference between programs, $p < .01$.

explainable and instructive. Residents at a program with a widely discussed policy regarding admission of indigent patients were less likely than others to want more attention paid to making admission or treatment decisions based on ability to pay.

Likewise, many house officers at a program with an active medical ethics consultation service desired less additional information about the role of an ethics consultant. Most residents at a program with a newly established ethics committee, which included house staff members, indicated that they wanted more education about the function of that committee. Thus, in a particular program, awareness of issues, of the resources available, and of the frequency with which particular problems arise should help predict which topics residents would like to learn more about. A survey similar to ours could be used by an individual program to plan its curriculum.

While our survey records residents' preferences for learning about ethical problems, it does not describe the types of ethical problems physicians encounter or their frequencies. These are important considerations for curriculum planning, and other studies have examined them.[17–20] Physicians surveyed in 1982 reported that the four most common issues they confronted were compassion, truth-tell-

Table 2

Percentages of 202 Residents in Six Internal Medicine Residency Programs* Who Rated as "Very Useful" Each of 17 Methods for Teaching Medical Ethics, 1989

Teaching Method	% of All Respondents	Range of % by Program
Several conferences on ethics†	57	33–76
Incorporation of these issues in other presentations and discussions†	57	30–78
Several lectures or grand rounds on ethics†	55	24–83
Discuss these subjects with colleagues and knowledgeable discussion leader	53	36–59
Calling on ethics consultation†	45	6–63
Special lecture course on ethics†	42	12–67
Observing attending physicians handle ethical problems with patient	40	15–56
Bringing problems to the attention of an ethics committee†	37	6–60
Independent reading	34	27–47
Discuss ethical issues with colleagues	32	23–48
Discuss ethical issues with hospital attorney	30	20–35
Workshops at professional meetings	30	15–41
An ethics manual	29	9–45
Reading aided by annotated bibliography	29	24–36
Discussing a videotape about an ethical issue with knowledgeable discussion leader	19	9–25
A reading course based on novels	9	5–16
Watching self-instructive videotape	8	0–11

*The six programs (one in Chicago and one in Evanston, Illinois; two in Salt Lake City, Utah; and two in Portland, Oregon) had a total of 332 residents. They rated the teaching methods on a Likert-type scale.

†Significant differences between programs, $p < .01$.

ing, patient's role in decision making, and obtaining informed consent.[5] On a medical inpatient service, sensitized residents most often identified as problems withholding tests or treatment, informed consent, truth-telling, relationships among physicians, and limited resources.[1] All of these problems, except informed consent, were among those categorized most often in our survey as suitable for more attention.

Our survey provides some helpful information about methods for teaching ethics. The residents clearly rejected watching instructional videotapes by themselves or reading novels, but they were not asked specifically about other uses of videotapes or about reading shorter pieces of literature. The majority of residents favored the methods by which they learn about the rest of clinical medicine. This may be because they have little experience with some of the other methods included in our survey. We do not believe that the survey results argue convincingly against using these techniques, especially in view of the wide variation in responses by program. The results, however, suggest that conventional methods, available at nearly all programs, may be quite acceptable for medical ethics teaching. Other, innovative methods not listed in our survey may also be useful.[11]

Several internal medicine departments have already described the contents and methods they are using in their ethics programs[9–13] and others do so in this issue of *Academic Medicine*. Barnard has called attention to other, perhaps neglected dimensions of medical ethics.[21]

Although the response rate of residents to our survey was better than the rate achieved in similar surveys,[5] the number of nonrespondents, the lack of information about whether they differed significantly from respondents, and the non-random selection of programs preclude broad generalizations from our results. The age and gender distributions of our participating residents, for example, are similar to those of internal medicine residents in the United States, but our survey included no acknowledged foreign medical graduates. Nevertheless, we think the results provide some guidance, especially for programs similar to the ones we studied.

We hope our survey of residents' preferences combined with the observations, recommendations, and curricular innovations of others will help faculty provide the kind of medical ethics education that most residents seem eager to receive.

The authors thank the program directors, house staff coordinators, chief medical residents, and especially the residents themselves, for their cooperation and participation in this study; and Thelma Davis for helping in the conduct of the study. The work of the Center for Clinical Medical Ethics is supported by The Henry J. Kaiser Family Foundation, The Pew Charitable Trusts, and the Andrew W. Mellon Foundation.

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AAMC DATA REPORT

Expectations of Medical School Expenses and Financing among 1988 MCAT Examinees

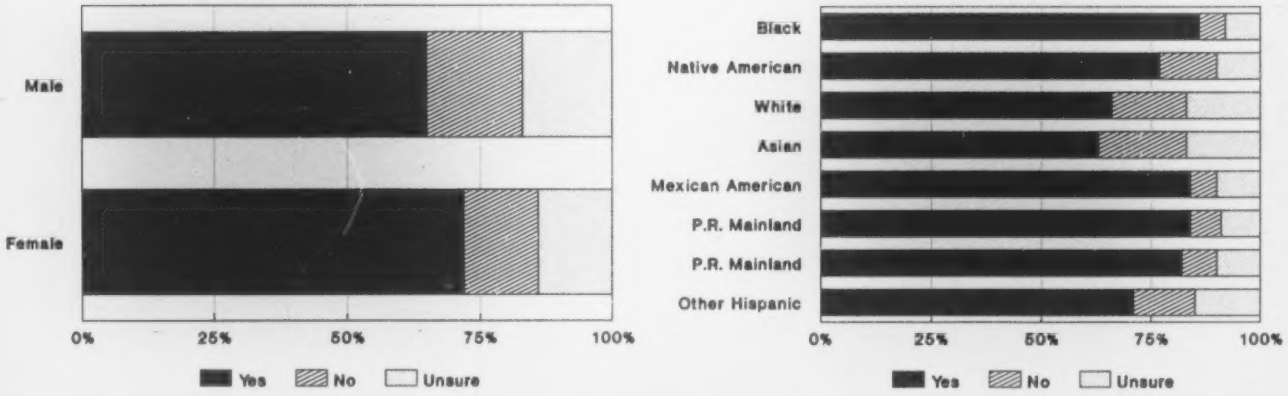

Figure 1. **Percentages of 1988 MCAT Examinees who expected to need financial aid for their medical education, by gender (*left*) and by ethnicity (*right*). Sample was the 81% (26,944) who answered financial questions on the Premedical Student Questionnaire: by gender (men = 15,842, women = 11,102); by ethnicity (black = 2,139, Native American = 134, white, except Hispanic = 18,196, Asian or Pacific Islander = 3,662, Mexican American = 498, Puerto Rico Mainland = 214, Puerto Rico Commonwealth = 489, other Hispanic = 584, ethnic group not identified = 1,038.**

The figures and tables shown here present data from the Premedical Student Questionnaire (PMQ) completed by the 33,007 examinees who took the Medical College Admission Test (MCAT) in 1988. Approximately 81% of them (26,944) gave information on how they expected to pay for medical school.

When asked whether they anticipated needing financial assistance to complete medical school, 68% responded yes, 16% responded no, and 16% were unsure. Figure 1 shows that the percentages who anticipated needing aid varied substantially by gender and ethnicity. Overall, the amount they anticipated needing was $40,007. The average amount they expected to borrow varied substantially by ethnicity and region, less so by gender (Table 1).

The students' expectations are similar to the actual average indebtedness and distribution of debt among graduating medical students. As reported in the 1988 AAMC Medical Student Graduation Questionnaire, the average indebtedness of graduates with debt was $38,489, compared with the $40,007 anticipated by the 1988 PMQ respondents. The proportion of 1988 graduates without debt (17%) is close to the percentage of PMQ respondents indicating that they would not need financial aid (16%). Thus, premedical students seem to have fairly realistic expectations about the cost of medical education.

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Table 1

Average Amounts of Loans that 1988 MCAT Examinees Anticipated They Would Need to Finance Their Medical Education, by Gender, Ethnicity, and Region*

Groups	Estimated Loan Needed	No. of Respondents
Gender		
Men	$39,219	9,212
Women	41,094	6,687
Ethnicity		
Black	41,599	1,604
Native American	44,446	91
White (except Hispanic)	39,562	10,395
Asian or Pacific Islander	40,209	2,024
Mexican-American	42,337	366
Puerto Rican (Mainland)	47,799	161
Puerto Rican (Commonwealth)	38,418	354
Other Hispanic	38,020	373
Region		
Northeast	47,390	3,781
South	35,907	4,550
Central	39,437	3,704
West	41,954	2,615
All respondents	$40,007	15,899

*Of the 33,007 who took the 1988 Medical College Admission Test, 81% (26,944) answered the financial questions on the Premedical Student Questionnaire, and 68% of those who answered expected to need financial aid; overall, 15,899 specified the amount.